

$D_{s2}^*(2573)$ $I(J^P) = 0(?)$ J^P is natural, width and decay modes consistent with 2^+ . **$D_{s2}^*(2573)$ MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2571.9 ± 0.8 OUR AVERAGE				
2569.4 $\pm 1.6 \pm 0.5$	82 ± 17	AAIJ	11A LHCb	$B_s \rightarrow D_{s2}^*(2573)\mu\nu X$
2572.2 $\pm 0.3 \pm 1.0$		AUBERT,BE	06E BABR	$e^+ e^- \rightarrow D K X$
2574.5 $\pm 3.3 \pm 1.6$		ALBRECHT	96 ARG	$e^+ e^- \rightarrow D^0 K^+ X$
2573.2 $^{+1.7}_{-1.6} \pm 0.9$	217	KUBOTA	94 CLE2	$e^+ e^- \sim 10.5$ GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2570.0 ± 4.3	25	¹ EVDOKIMOV	04 SELX	$600 \Sigma^- A \rightarrow D^0 K^+ X$
2568.6 ± 3.2	64	² HEISTER	02B ALEP	$e^+ e^- \rightarrow D^0 K^+ X$

1 Not independent of the mass difference below.

2 Calculated using $m_{D^0} = 1864.5 \pm 0.5$ MeV and the mass difference below.

NODE=M148

NODE=M148M

NODE=M148M

NODE=M148M;LINKAGE=EV

NODE=M148M;LINKAGE=HI

 $m_{D_{s2}^*(2573)} - m_{D^0}$

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
704 $\pm 3 \pm 1$				
64	HEISTER	02B ALEP	$e^+ e^- \rightarrow D^0 K^+ X$	
• • • We do not use the following data for averages, fits, limits, etc. • • •				
705.4 ± 4.3	25	³ EVDOKIMOV	04 SELX	$600 \Sigma^- A \rightarrow D^0 K^+ X$

3 Systematic errors not estimated.

NODE=M148DM

NODE=M148DM

NODE=M148DM;LINKAGE=EV

NODE=M148W

NODE=M148W

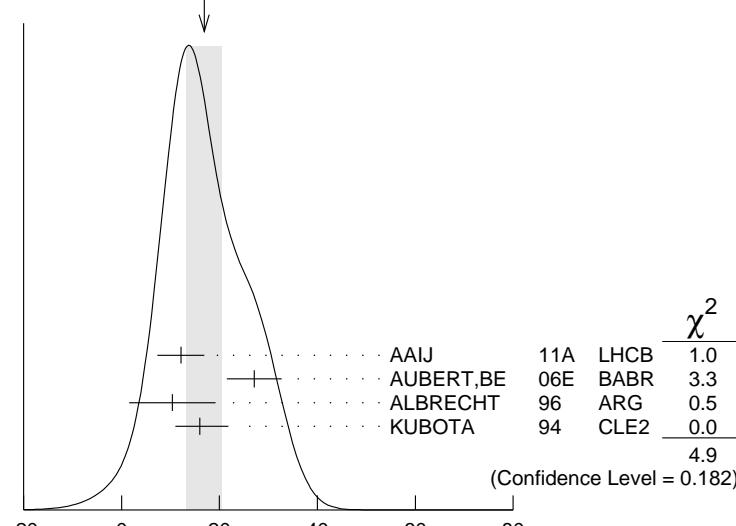
 $D_{s2}^*(2573)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
17 ± 4 OUR AVERAGE Error includes scale factor of 1.3. See the ideogram below.				
12.1 $\pm 4.5 \pm 1.6$	82 ± 17	AAIJ	11A LHCb	$B_s \rightarrow D_{s2}^*(2573)\mu\nu X$
27.1 $\pm 0.6 \pm 5.6$		AUBERT,BE	06E BABR	$e^+ e^- \rightarrow D K X$
10.4 $\pm 8.3 \pm 3.0$		ALBRECHT	96 ARG	$e^+ e^- \rightarrow D^0 K^+ X$
16 $^{+5}_{-4} \pm 3$	217	KUBOTA	94 CLE2	$e^+ e^- \sim 10.5$ GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
14 $^{+9}_{-6}$	25	⁴ EVDOKIMOV	04 SELX	$600 \Sigma^- A \rightarrow D^0 K^+ X$

4 Systematic errors not estimated.

NODE=M148W

NODE=M148W;LINKAGE=EV

WEIGHTED AVERAGE
17 ± 4 (Error scaled by 1.3) $D_{s2}^*(2573)$ WIDTH (MeV)

$D_{s2}^*(2573)^+$ DECAY MODES $D_{s2}^*(2573)^-$ modes are charge conjugates of the modes below.

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 D^0 K^+$	seen
$\Gamma_2 D^*(2007)^0 K^+$	not seen

 $D_{s2}^*(2573)^+$ BRANCHING RATIOS

$\Gamma(D^0 K^+)/\Gamma_{\text{total}}$	Γ_1/Γ				
VALUE	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
seen	217	KUBOTA	94	CLE2	\pm $e^+ e^- \sim 10.5$ GeV

$\Gamma(D^*(2007)^0 K^+)/\Gamma(D^0 K^+)$	Γ_2/Γ_1				
VALUE	CL%	DOCUMENT ID	TECN	CHG	COMMENT
<0.33	90	KUBOTA	94	CLE2	$+ e^+ e^- \sim 10.5$ GeV

 $D_{s2}^*(2573)$ REFERENCES

AAIJ	11A	PL B698 14	R. Aaij <i>et al.</i>	(LHCb Collab.)
AUBERT,BE	06E	PRL 97 222001	B. Aubert <i>et al.</i>	(BABAR Collab.)
EVDOKIMOV	04	PRL 93 242001	A.V. Evdokimov <i>et al.</i>	(SELEX Collab.)
HEISTER	02B	PL B526 34	A. Heister <i>et al.</i>	(ALEPH Collab.)
ALBRECHT	96	ZPHY C69 405	H. Albrecht <i>et al.</i>	(ARGUS Collab.)
KUBOTA	94	PRL 72 1972	Y. Kubota <i>et al.</i>	(CLEO Collab.)

NODE=M148215;NODE=M148

NODE=M148

DESIG=1

DESIG=2;OUR EVAL;→ UNCHECKED ←

NODE=M148220

NODE=M148R2

NODE=M148R2

NODE=M148R1

NODE=M148R1

NODE=M148

REFID=16665

REFID=51512

REFID=50337

REFID=48562

REFID=44631

REFID=43781